

BIOLOGICAL INDICATOR FOR STERILIZATION PROCESSES WITH DOUBLE BUFFER SYSTEM

Abstract of the Disclosure

A method and an apparatus for preventing reversion of the color of an indicator dye in a biological indicator is disclosed. The indicator dye changes color if viable microorganisms are present after sterilization, because acidic byproducts are formed when the microorganisms metabolize the growth medium. It has been found that the dye can change color back to the original color after the completion of the sterilization due to leaching or diffusion of basic impurities into the growth medium. The method and the apparatus employ a dual buffer system with one buffer which operates at high pH to moderate pH fluctuations at the start of the sterilization and a second buffer which operates at low pH to minimize pH fluctuations after the sterilization is complete. Less high pH buffer than low pH buffer is used in order to maximize the speed and sensitivity of the biological indicator.

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